October 2, 1998

#### MEMORANDUM FOR DISTRIBUTION

SUBJECT: STATEWIDE PERMIT NO. 9 - MINOR SHORELINE, STREAM BANK, AND CHANNEL PROTECTION ACTIVITIES

Attached for your information is a copy of Illinois Department of Natural Resources, Office of Water Resources Statewide Permit No. 9, which has been issued to authorize minor shoreline, stream bank, and channel protection activities on all rivers, lakes and streams under the Department's jurisdiction except Lake Michigan and those in Lake, McHenry, Cook, DuPage, Kane and Will Counties for which regulatory floodways have been designated pursuant to 17 Illinois Administrative Code 3708. This permit has been issued pursuant to the Rivers, Lakes and Streams Act, 615 ILCS 5 (1996 State Bar Edition).

This Act requires the Department to regulate construction within public bodies of water and within the floodways of streams draining ten (10) square miles or more in rural areas and one (1) square mile or more in urban areas. Among the purposes of the regulatory program are the protection of public interests in public bodies of water, the preservation of the flood carrying capacity of streams and the prevention of significant increases in potential flood damage. The issuance of Statewide Permit No. 9 represents, in part, the Department's ongoing effort to accomplish these purposes while reducing regulatory costs and burden on the public.

For additional information regarding this permit, or any other aspect of the Office of Water Resources' regulatory program, please feel free to contact the Downstate Regulatory Programs Section in Springfield (217/782-3863) or the Northeastern Illinois Regulatory Programs Section in Schaumburg (847/705-4341).

# ILLINOIS DEPARTMENT OF NATURAL RESOURCES OFFICE OF WATER RESOURCES 524 SOUTH SECOND STREET SPRINGFIELD, ILLINOIS 62701-1787

STATEWIDE PERMIT NO. 9

AUTHORIZING MINOR SHORELINE, STREAM BANK, AND CHANNEL PROTECTION ACTIVITIES

## PURPOSE

The purpose of this Statewide Permit is to authorize minor shoreline, stream bank, and channel protection activities which have insignificant impact on those factors under the jurisdiction of the Illinois Department of Natural Resources, Office of Water Resources (IDNR/OWR). It is no longer necessary to submit applications to, or obtain individual permits from, IDNR/OWR for activities meeting the terms and conditions of this permit. If a project would not meet all of the terms and conditions of this permit, a formal permit application must be submitted.

#### APPLICABILITY

This permit applies to shoreline, stream bank, and channel protection activities on all Illinois rivers, lakes and streams under the Department's jurisdiction except Lake Michigan and those in Lake, McHenry, Cook, DuPage, Kane and Will Counties for which regulatory floodways have been designated pursuant to 17 Illinois Administrative Code 3708. Only those reaches of shoreline, stream bank, and channel which are experiencing active erosion are covered by this permit. In public waters, only the placement of protection materials on an eroded bank is authorized by this permit. This permit does **not** apply to the following activities: channel modifications such as the excavation of pilot channels; the placement of materials other than on an eroded bank of a public water (see attached list); and projects which conflict with a federal, state or local project or improvement or with any other rules of the Department.

#### COORDINATION WITH OTHER AGENCIES

This permit does not supersede nor relieve any permittee's responsibility to obtain other federal, state or local permits. The local (county or municipal) regulatory official and the U. S. Army Corps of Engineers' regulatory office should be contacted to obtain any additional design criteria and required permits. In addition, if any historical or archeological materials are revealed by any activity authorized by this permit, the activity shall be suspended and the permittee shall notify the staff archeologist, Historic Preservation Agency, One Old State Capitol Plaza, Springfield, Illinois 62701.

# SPECIAL CONDITIONS

In order to be authorized by this permit, an individual project must meet the following special conditions.

- 1. Only the following materials may be utilized in urban areas: stone and concrete riprap, steel sheet piling, cellular blocks, fabric-formed concrete, gabion baskets, rock and mattresses, sand/cement filled bags, geotechnical fabric materials, natural vegetation and treated timber. Urban areas are defined as: areas of the State where residential, commercial or industrial development currently exists or, based on land use plans or controls, is expected to occur within ten years. (The Department should be consulted if there is a question of whether or not an area is considered urban.)
- 2. In addition to the materials listed in special condition #1, other materials (e.g. tire revetments) may be utilized in rural areas provided all other conditions of this permit are met.
- 3. The following materials shall <u>not</u> be used in any case: auto bodies, garbage or debris, scrap lumber, metal refuse, roofing materials, asphalt or other bituminous materials, or any material which would cause water pollution as defined by the Environmental Protection Act (415 ILCS 5).

- 4. The affected length of shoreline, stream bank, or channel to be protected shall not exceed, either singularly or cumulatively, one thousand (1000) feet.
- 5. All material utilized shall be properly sized or anchored to resist anticipated forces of current and wave action.
- 6. Materials shall be placed in a way which would not cause erosion, or the accumulation of debris, on properties adjacent to or opposite the project.
- 7. Materials shall not be placed higher than the existing top of bank.
- 8. Materials shall be placed so that the modified bank full width and cross-sectional area of the channel will conform to or be no more restrictive than that of the natural channel upstream and downstream of the site.

For projects involving continuous placement of riprap along the bank, toe of the bank or other similar applications, in no case shall the cross-sectional area of the natural channel be reduced by more than ten percent (10%) nor the volume of material placed exceed two (2) cubic yards per lineal foot of stream bank or shoreline. The bank may be graded to obtain a flatter slope and to lessen the quantity of material required.

- 9. If broken concrete is used, all protruding materials such as reinforcing rods shall be cut flush with the surface of the concrete and removed from the construction area.
- 10. Disturbance of vegetation shall be kept to a minimum during construction to prevent erosion and sedimentation. All disturbed areas shall be seeded or otherwise stabilized upon completion of construction.
- 11. In the case of seawalls and gabion structures on lakes, the structure shall be constructed at or landward of the water line, as determined by the normal pool elevation, unless;
  - a) It is constructed in alignment with an existing seawall(s) or gabion structure(s); and

- b) The volume of material placed, including the structure, would not exceed two (2) cubic yards per lineal foot.
- 12. Excess material excavated during the construction of the bank or shoreline protection shall be placed in accordance with local, state, and federal laws and rules and shall not be placed in a floodway.

The usual types of projects which provide bank or shoreline stabilization include: riprap or other materials placed along the eroded length of the bank or shoreline, riprap or other materials placed at regular intervals into the stream from the eroded bank (bendway weirs, dikes, jetties), riprap placed along the toe of the bank (toe points), and riprap keyed into the bank at regular intervals along the stream (hard points). Other similar construction activities, although not specifically listed above, may comply with the intent of this Statewide Permit and, therefore, may be authorized by this permit. For those projects not specifically listed, however, plans must be submitted to the Illinois Department of Natural Resources, Office of Water Resources for review and an appropriate determination.

### DESIGN SUGGESTIONS

Flow velocities, existing bed and bank soils, and directions of flow at each site should be investigated before developing a shoreline or stream bank protection plan. The following design suggestions are provided as general guidance only. For assistance in designing shoreline or stream bank protection, it is suggested that you contact a registered professional engineer or the U. S. Army Corps of Engineers, Waterways Experiment Station, Vicksburg, Mississippi 39180, for a copy of the booklet, "Streambank Protection Guidelines...For Landowners and Local Governments."

The following suggestions are listed as general guidance for the placement of riprap on an eroded bank, one of the most common forms of bank protection.

- 1. A well distributed mix of stones weighing from 20 to 200 pounds should be used.
- 2. The thickness of the riprap layer should be from 12 to 18 inches. Portions of the riprap layer that would normally be under water should be increased to 18 to 30 inches.

- 3. Dumped riprap should be placed at a slope of 2 horizontal to 1 vertical or flatter. The slope may be increased to 1.5 horizontal to 1 vertical for hand-placed riprap.
- 4. A riprap trench or apron should be provided at the base of the protected bank for stability.
- 5. Both ends of the project should be "tied" into the bank; the most common method being to excavate a trench in the bank and fill it with riprap. Additionally, the project should be "tied" into the bank at regular intervals of between 100 ft. and 200 ft.

The following suggestions are listed as general guidance for the placement of riprap for the establishment of longitudinal peaked stone protection (a continuous stone dike placed along the toe of the bank).

- 1. Riprap with a gradation from a maximum stone size of 400 pounds to 50 to 70% smaller than a 90 pound stone size is placed in a "pyramid" or triangular shaped cross section at the toe of an eroding bank without shaping the banks.
- 2. The riprap should be "tied" into the bank at both the upstream and downstream ends. Additionally, short riprap dikes should be "tied" into the bank at regular intervals of between 100 ft. and 200 ft.

The following suggestions are listed as general guidance for the placement of riprap for the establishment of bendway weirs (a low-level upstream-angled stone sill).

- 1. The weirs should be attached (keyed into) the outer bank of the bend.
- 2. They should be angled from 0 to 25 degrees upstream and spaced 50 to 150 feet apart.
- 3. They should be built of well graded stone with an upper weight limit of 650 to 1,000 pounds.
- 4. They are typically 2 feet high at the stream end and rise to 4 feet in height at the bank end.

#### GENERAL CONDITIONS OF THE STATEWIDE PERMIT

- 1. This permit is granted in accordance with the Rivers, Lakes and Streams Act, 615 ILCS 5 (1996 State Bar Edition).
- 2. This permit does not convey title to any permittee or recognize title of any permittee to any submerged or other lands, and furthermore, does not convey, lease or provide any right or rights of occupancy or use of the public or private property on which the project or any part thereof will be located, or otherwise grant to any permittee any right or interest in or to the property, whether the property is owned or possessed by the State of Illinois or by any private or public party or parties.
- 3. This permit does not release any permittee from liability for damage to persons or property resulting from any activity covered by this permit and does not authorize any injury to private property or invasion of private rights.
- 4. This permit does not relieve any permittee of the responsibility to obtain other federal, state or local authorizations required for the construction of the permitted activity; and if any permittee is required by law to obtain approval from any federal or other state agency to do the work, authorization granted by this permit is not effective until the federal and state approvals are obtained.
- The permittee shall, at the permittee's own 5. expense, remove all temporary piling, cofferdams, false work, and material incidental to the construction of the project, from the floodway in which the work is done. If the permittee fails to such structures or materials, Department may have removal made at the expense of the permittee. If the activity is on a public body of water and if future need for public navigation or public interests, by the state or federal government, necessitates changes in any part of the structure or structures, such changes shall be made by and at the expense of the permittee or permittee's successors as required by the Department of Natural Resources or other properly constituted agency, within sixty (60) days from receipt of written notice of the necessity from the Department or other agency, unless a longer period of time is specifically authorized.

- 6. In issuing this permit, the Department of Natural Resources does not approve the adequacy of the design or structural strength of any structure or improvement authorized by this permit.
- 7. This Statewide Permit shall remain in effect until such time as it is modified, suspended, or revoked by the Department of Natural Resources.

This Statewide Permit was issued on October 1, 1986 and last modified or corrected October 2, 1998.

APPROVED:

Brent Manning, Director
Department of Natural Resources

EXAMINED AND RECOMMENDED:

Martin J. Stralow, Manager Division of Water Resource Management

APPROVAL RECOMMENDED:

Donald R. Vonnahme, Director Office of Water Resources

# Public Bodies of Water

The following public bodies of water were navigable in their natural condition or were improved for navigation and opened to public use. The entire length and surface area in Illinois, including all backwater lakes and sloughs open to the main channel or body of water at normal flows or stages, are open to the public unless limited to a head of navigation as stated. Head of navigation descriptions use the U.S. rectangular survey system and these abbreviations: T = township, R = range, PM = principal meridian, Sec. = section, 1/4 = quarter section, N = north, E = east, S = south, W = west, USGS = U.S. Geological Survey.

- 1) Lake Michigan;
- 2) Chicago River: Main Branch;
- 3) Chicago River: North Branch to North Shore Channel;
- 4) Chicago River: South Branch;
- 5) Chicago River: South Fork of South Branch;
- 6) Chicago River: East and West Arms of South Fork of South Branch;
- 7) Chicago River: West Fork of South Branch to Chicago Sanitary and Ship Canal;
- 8) Calumet River;
- 9) Lake Calumet and entrance channel to Calumet River;
- 10) Grand Calumet River;
- 11) Little Calumet River;
- 12) Wolf Lake (Cook County);
- 13) Mississippi River (including all backwater lakes such as Frentress Lake in Jo Daviess County, Boston Bay in Mercer County and Quincy Bay in Adams County);

- 14) Sinsiniwa River to North Line of Sec. 9, T28N, R1W, 4th PM in Jo Daviess County, which is located approximately two-thirds mile downstream from the U.S. Highway 20 bridge. This area is shown on the Galena, Ill.-Iowa, 7.5 minute USGS quadrangle map;
- 15) Galena River to East Line of Sec. 6, T28N, R1E, 4th PM in Jo Daviess County, which is located approximately one-half mile upstream from the County Highway 67 bridge. This area is shown on the Galena, Ill.-Iowa, 7.5 minute USGS quadrangle map;
- 16) Apple River to North Line of Sec. 35, T26N, R2E, 4th PM in Jo Daviess County;
- Plum River to North Line, T24N, R3E, 4th PM in Carroll County, which is located approximately one and one-half miles upstream from the U.S. Highway 52 bridge. This area is shown on the Savanna, Ill., 15 minute USGS quadrangle map;
- 18) Rock River;
- 19) Pecatonica River;
- 20) Sugar River (Winnebago County);
- 21) Stillman Creek to South Line, T25N, R11E, 4th PM in Ogle County, which is located approximately one-third mile downstream from the Illinois Highway 72 bridge. This area is shown on the Stillman Valley, 7.5 minute USGS quadrangle map;
- 22) Henderson Creek (new channel) to East Line, SW 1/4, Sec. 6, T10N, R5W, 4th PM in Henderson County. The river has been relocated and the old channel abandoned;
- 23) The Sny in Adams, Pike and Calhoun Counties. The area has been drained with levees and ditches and it is uncertain that any descendent body of water exists;

- 24) Bay Creek to West Line, Sec. 29, T8S, R3W, 4th PM in Calhoun County. The head of navigation is the limit of meanders on the official plat of survey; but it is uncertain that any descendent body of water exists;
- 25) Illinois River (including all backwater lakes such as Peoria Lake in Peoria,
  Tazewell and Woodford Counties; Matanzas
  Bay in Mason County; and Meredosia Lake
  in Cass and Morgan Counties);
- Des Plaines River to Hoffman Dam in Cook County, which is located one-half mile downstream from the junction with Salt Creek. This area is shown on the Berwyn, 7.5 minute USGS quadrangle map;
- 27) Kankakee River;
- 28) Iroquois River to South Line, SW 1/4, Sec. 30, T27N, R12W, 2nd PM in Iroquois County, which is located approximately one mile downstream from the junction with Sugar Creek. This area is shown on the Gilman, 15 minute USGS quadrangle;
- 29) Fox River (Illinois River Basin);
- 30) Griswold Lake (McHenry County);
- 31) Fox Chain-O-Lakes (Lake and McHenry Counties): Bluff Lake, Lake Catherine, Channel Lake, Fox Lake, Grass Lake, Lake Marie, Nippersink Lake, Dunns Lake, Pistakee Lake, Lake Jerilyn, Lac Louette, Redhead Lake;
- 32) Vermilion River (Illinois River Basin) to approximately one-half mile above the mouth near Oglesby in LaSalle County;
- 33) Spring Lake (Tazewell County);

- 34) Spoon River to North Line, Sec. 24, T6N, R1E, 4th PM in Fulton County, which is located approximately one-half mile upstream from the Illinois Highway 95 bridge. This area is shown on the Smithfield, 7.5 minute USGS quadrangle map;
- 35) Sangamon River to South Line, NE 1/4, Sec. 1, T15N, R4W, 3rd PM in Sangamon County, which is located approximately one mile south of the Mechanicsburg Road bridge. This area is shown on the Mechanicsburg, 7.5 minute USGS quadrangle map;
- 36) Sangamon River: South Fork to South Line, Sec. 33, T16N, R4W, 3rd PM in Sangamon County, which is located approximately two miles upstream from the mouth. This area is shown on the Springfield-East, 7.5 minute USGS quadrangle map;
- 37) Macoupin Creek to East Line, Sec. 25, T9N, R13W, 3rd PM in Green and Jersey Counties, which is located approximately one mile downstream from the junction with Boyer Creek. This area is shown on the Boyer Creek, 7.5 minute USGS quadrangle map;
- 38) Otter Creek to East Line of Sec. 3, T7N, R13W, 3rd PM in Jersey County, which is located approximately two miles east of the Illinois Highway 100 bridge. This area is shown on the Nutwood, 7.5 minute USGS quadrangle map;
- 39) Kaskaskia River to East Line, SW 1/4, Sec. 31, T8N, R2E, 3rd PM, which is located nine miles south and two miles west of Herrick. This area is shown on the Vera, 7.5 minute USGS quadrangle map;
- 40) Big Muddy River to East Line T8S, R2W, 3rd PM in Jackson County, which is located approximately one mile northwest of the Southern Illinois Airport. This area is shown on the Murphysboro, 7.5 minute USGS quadrangle map;

- 41) Ohio River;
- 42) Wabash River;
- Vermilion River (Wabash River Basin) to West Line, T19N, R11W, 2nd PM in Vermilion County, which is located approximately one mile upstream from the junction with the North Fork. This area is shown on the Danville, SW, 7.5 minute USGS quadrangle map;
- 44) Little Wabash River to the Illinois Highway 1 bridge in Carmi in White County;
- 45) Saline River to junction of North Fork and South Fork;
- Saline River: North Fork to North Line, Sec. 5, T8S, R8E, 3rd PM in Gallatin County, which is located approximately three miles south of the junction of Illinois Highway 141 and U.S. Highway 45. This area is shown on the Ridgway, 7.5 minute USGS quadrangle map;
- 47) Saline River: South Fork to West Line, T9S, R8E, 3rd PM in Gallatin County, which is located at the Gallatin-Saline County line. This area is shown on the Equality, 7.5 minute USGS quadrangle map;
- 48) Horseshoe Lake (Alexander County).

The following public bodies of water are primarily artificial navigable waters that were opened to public use.

- 1) Illinois and Michigan Canal;
- 2) Illinois and Mississippi (Hennepin) Canal and Canal Feeder;
- 3) North Shore Channel (Cook County);
- 4) North Branch Canal of North Branch Chicago River (Cook County);

- 5) Relocated South Branch Chicago River (Cook County);
- 6) Chicago Sanitary and Ship Canal;
- 7) Calumet Sag Channel;
- 8) Marseilles Canal (LaSalle County);
- 9) Chain of Rocks Canal (Madison County);
- 10) Relocated Kaskaskia River.

The following public bodies of water are navigable waters that were dedicated to public use. This list is incomplete. It is believed there are numerous channels and slips in subdivisions on the margins of public bodies of water which have been dedicated by plat. Additional channels and slips have been dedicated by common law.

1) Petite Lake, Spring Lake and connecting channels between Bluff Lake and Fox Lake in Lake County.